

REMARKS

In an Office Action mailed on January 16, 2004, the Examiner maintained the § 103(a) rejections of claims 1-29 in view of the combination of Kirkman and Nuxoll. Reconsideration of these rejections is respectfully requested for the reasons set forth below.

Rejections of Claims 1-14:

The Examiner fails to establish a *prima facie* case of obviousness for independent claim 1 for at least the reason that even assuming, *arguendo*, that the combination of Kirkman and Nuxoll is proper, this combination of references fails to teach or suggest all claim limitations. For example, the Examiner relies on Kirkman to allegedly teach the supply voltage plane of independent claim 1. However, claim 1 requires that the supply voltage plane is embedded in a signal layer. Contrary to this requirement, Kirkman teaches a supply voltage plane that is *separate* from the signal layer. More specifically, in lines 9-26 of column 7 of Kirkman, Kirkman describes a first signal layer 80, a ground plane 82, a combined ground and power plane 84 and a second signal layer 86. Thus, Kirkman's signal layer is separate from its power layer.

The Examiner refers to the traces 46 and/or 48 as allegedly teaching a power plane that is embedded in the first signal layer 80. However, Kirkman describes the traces 46 and 48 as rings that are connected by vias to the ground and power planes. *See, for example*, Kirkman, 7:33-40. Kirkman does not describe the traces 46 and 48 as "planes," but rather, Kirkman describes these elements as connections to the ground and supply planes. Therefore, Kirkman fails to teach a supply voltage plane that is embedded in a signal layer. Furthermore, Nuxoll fails to teach or suggest the missing claim limitations. Thus, for at least the reason that the combination of references fails to teach or suggest all limitations of independent claim 1, a *prima facie* case of obviousness has not been established for this claim.

As set forth in the previous reply, the Examiner fails to establish a *prima facie* case of obviousness for independent claim 1 for the additional, independent reason that the Examiner still fails to show where the prior art contains the alleged suggestion or motivation to combine Kirkman and Nuxoll. The Examiner, having knowledge of the claimed invention, combines Nuxoll and Kirkman in a piecemeal fashion to derive the claimed invention. However, the Examiner must show that one skilled in the art, *without knowledge of the claimed invention*,

would have combined Nuxoll and Kirkman to derive the claimed invention. The Examiner has failed to make this showing and for at least this additional, independent reason fails to establish a *prima facie* case of obviousness for independent claim 1.

As further evidence of a lack of a suggestion or motivation to combine Nuxoll and Kirkman to derive the claimed invention, Kirkman teaches away from its de-miniaturization and thus, teaches away from the claimed invention and from its combination with Nuxoll. More specifically, as pointed out in the previous reply, Kirkman emphasizes the miniaturization of a semiconductor circuit, which would lead to one of ordinary skill in the art away from fabricating this circuit on a printed circuit board. Therefore, for at least this additional, independent reason, a *prima facie* case of obviousness has not been established for independent claim 1.

Claims 2-14 are patentable for at least the reason that these claims depend from an allowable claim. Therefore, withdrawal of the § 103(a) rejections of claims 1-14 is requested.

Rejections of Claims 15-19:

The Examiner fails to establish a *prima facie* case of obviousness for independent claim 15 for at least the reason that the Examiner still fails to show where the prior art contains the alleged suggestion or motivation for the combination of Nuxoll and Kirkman. More specifically, the Examiner has not shown language that would have provided a suggestion or motivation to one skilled in the art to combine Kirkman and Nuxoll to derive the claimed invention, without knowledge of the claimed invention. Thus, for at least this reason, a *prima facie* case of obviousness has not been established for independent claim 15. Furthermore, as set forth in the previous reply, Kirkman teaches away from the claimed invention and teaches away from its combination with Nuxoll. Thus, for at least these additional, independent reasons, a *prima facie* case of obviousness has not been established for independent claim 15.

Claims 16-19 are patentable for at least the reason that these claims depend from an allowable claim. Thus, withdrawal of the § 103 (a) rejections of claims 15-19 is requested.

Rejections of Claims 20-26:

The Examiner fails to establish a *prima facie* case of obviousness for independent claim 20 for at least the reason that even assuming, *arguendo*, that the combination of Nuxoll and

Kirkman is proper, the combination of references fails to teach or suggest all claim limitations. For example, the Examiner fails to show where either reference teaches embedding a supply voltage plane in a signal layer of a printed circuit board. See discussion of claim 1 above. Additionally, the Examiner ignores the limitations "high frequency component" and thus, fails to show where the combination of references allegedly teaches this limitation. Therefore, for at least the reason that the combination of references fails to teach or suggest all claim limitations, a *prima facie* case of obviousness has not been established for independent claim 20.

A *prima facie* case of obviousness has not been established for independent claim 20 for at least the additional, independent reason that the Examiner fails to show where the prior art contains the alleged suggestion or motivation for the combination of Nuxoll and Kirkman. Furthermore, Kirkman teaches away from its combination with Nuxoll and teaches away from the claimed invention, as discussed in the previous reply. Thus, for at least these additional, independent reasons, a *prima facie* case of obviousness has not been established for independent claim 20.

Claims 21-26 are patentable for at least the reason that these claims depend from an allowable claim. Therefore, withdrawal of the § 103(a) rejections of claims 20-26 is requested.

Rejections of Claims 27-29:

The Examiner fails to establish a *prima facie* case of obviousness for independent claim 27 for at least the reason that even assuming that the combination of Nuxoll and Kirkman is proper, this combination of references fails to teach or suggest all claim limitations. For example, the Examiner is ignoring the language "high frequency component" set forth in independent claim 27 and fails to show where either reference teaches or suggests this limitation.

A *prima facie* case of obviousness has not been established for independent claim 27 for at least the additional, independent reason that the Examiner fails to show where the prior art contains the alleged suggestion or motivation for the combination of Nuxoll and Kirkman. Furthermore, Kirkman teaches away from the claimed invention and teaches away from its combination with Nuxoll, for the reasons set forth in the previous reply.

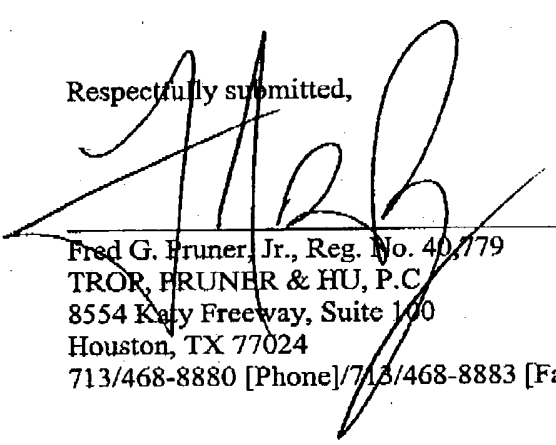
Claims 28 and 29 are patentable for at least the reason that these claims depend from an allowable claim. Thus, withdrawal of the § 103(a) rejection of independent claim 27 is requested.

CONCLUSION

In view of the foregoing, withdrawal of the § 103(a) rejections of claims 1-29 and a favorable action in the form of a Notice of Allowance are requested. The Commissioner is authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-1504 (ITL.0644US).

Respectfully submitted,

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